## **CLAIMS**

## WHAT IS CLAIMED IS:

5

15

20

30

l

1. A golf swing analyzing device, comprising:

a tee mat, said mat having an embedded pressure sensing means located in one corner of said mat, said embedded sensing means occupying no more than one-fourth of the topographical area of said mat, said mat further having first and second boundary lines marking the area below where said embedded sensing means is located, said first boundary line indicating the side of said embedded sensing means where a golfer stands, and said second boundary line indicating the front end of said embedded sensing means.

sensing means;

traction backing attached to the bottom side of said mat, thereby preventing said mat from slipping on the underlying surface;

an Astroturf™ type surface attached to the top side of said tee mat;

a golf tee removably mounted to said mat by attaching means, said tee located just to the outside of said second front boundary line, said tee extending above said Astroturf™ surface;

a golf ball placed on said golf tee; and

- an electronic control box coupled to the output of said pressure sensing means, said electronic control box obtaining power by means of a power cord attached to a 110-volt outlet, said control box further comprising a timer circuit coupled to a visible alarm means for visibly signaling when a golf club head strikes the mat surface behind the ball prior to contacting the ball, thereby indicating a poor golf swing.
- 2. The device of claim 1, wherein said golf tee is removed and said golf ball is placed on said mat surface in the general area of said golf tee location.
- The device of claim 1, wherein said embedded sensing means sends an electrical signal to said timer circuit when said golf club head strikes said mat in the area directly above said embedded sensing means, thereby triggering said timer circuit.
  - 4. The device of claim 3, wherein when triggered said timer circuit provides an adjustable length pulsed signal to said alarm means, thereby providing a visible alarm a few seconds in time, or absence thereof, to the golfer indicating the status of the swing.

- 5. The device of claim 1, wherein the golfer stands on said golf mat to the side of said first boundary line, thereby avoiding falsely setting off said alarm by stepping on said pressure sensing means.
- 6. The device of claim 1, wherein said timer circuit and said visible alarm means are powered by batteries and electricity, said batteries being located in said control box.
- 7. The device of claim 4, wherein said device is configured for a right-handed golfer.
- 8. The device of claim 4, wherein said device is configured for a left-handed golfer.
- 9. A golf swing analyzing device, comprising:
  - a tee mat, said mat having an embedded pressure transducer located in one corner of said mat, said embedded pressure transducer occupying no more than one-fourth of the topographical area of said mat, said mat further having first and second boundary lines marking the area below where said embedded pressure transducer is located, said first boundary line indicating the side of said embedded pressure transducer where a golfer stands, and said second boundary line indicating the front end of said embedded pressure transducer;
  - traction backing attached to the bottom side of said mat, thereby preventing said mat from sliding on the underlying surface;
  - an Astroturf™ type surface attached to the top side of said tee mat;
  - a golf tee removably mounted in a hole in said golf mat, said hole located just to the outside of said second front boundary line, said tee extending above said Astroturf™ surface;
  - a golf ball placed on said golf tee; and
  - an electronic control box coupled to the output of said pressure transducer, said electronic control box obtaining power by means of a power cord attached to a 110-volt outlet, said control box further comprising a timer circuit coupled to a visible flashing light for visibly signaling when a golf club head strikes the mat surface behind the ball prior to contacting the ball, thereby indicating a poor golf swing.
- 10. The device of claim 9, wherein said golf tee is removed from said hole and said golf ball is placed on said mat surface in the general location of said hole.

-page 11 of 1414-

l

25

5

10

15

20

- 11. The device of claim 9, wherein said embedded pressure transducer sends an electrical signal to said timer circuit when said golf club head strikes said mat in the area directly above said embedded pressure transducer, thereby triggering said timer circuit.
- 12. The device of claim 11, wherein when triggered said timer circuit provides an adjustable length pulsed signal to said buzzer, thereby providing a visible alarm a few seconds in time, or absence thereof, to the golfer indicating the status of the swing.
- 13. The device of claim 9, wherein the golfer stands on said golf mat to the side of said first boundary line, thereby avoiding falsely setting off said alarm by stepping on said pressure transducer.
- 10 14. The device of claim 9, wherein said timer circuit and said visible flashing light are powered by batteries, said batteries being located in said control box.
  - 15. The device of claim 9, wherein said device is configured for a right-handed golfer.
  - 16. The device of claim 9, wherein said device is configured for a left-handed golfer.
  - 17. A method for analyzing a golf swing, comprising:

5

15

20

25

30

- providing a golf mat with a removable golf tee mounted in provided golf tee hole, a rubber traction layer attached to the bottom of said golf mat, an Astroturf™ type top surface attached to the top of said golf mat, said golf mat further having an embedded pressure sensing device for detecting when a golf club strikes said golf mat in the area directly above said embedded pressure sensing device, first and second boundary lines marking the area below where said embedded pressure sensing device is located, said first boundary line indicating the side of said embedded sensing device where the golfer stands, and said second boundary line indicating the front end of said embedded pressure sensing device, a golf tee extending upward from said golf mat just in front of said second boundary line outside of said embedded sensing device area, the output signal of said embedded pressure sensing device coupled to the trigger input of a timer circuit, said timer circuit providing an adjustable length pulsed signal coupling to the input of a visible alarm for indicating when pressure is applied to said embedded pressure sensing device, said timer circuit and said visible alarm being powered by 110 volt AC power source;
- placing a golf ball on top of said golf tee;

standing to outside of said first boundary line facing said golf ball on said golf tee, being certain to step beyond said boundary lines, thereby preventing setting off false alarms; swinging said golf club in an attempt to solidly strike said golf ball without hitting said golf mat in area directly over said embedded pressure sensing device just prior to said tee;

looking for a visible alarm;

5

10

knowing that if no alarm was flashing, then the club head did not strike said golf mat prior to hitting said golf ball, thereby indicating that a greater amount of the dynamic energy from the club head was transferred to said golf ball and a good swing had occurred; and

further knowing that if an alarm was visualized, said club head did strike said golf mat prior to hitting said golf ball, therefore indicating that a portion of said dynamic energy from said golf club was absorbed by said golf mat and a defective swing had occurred.

- 15 18. The method of claim 17, wherein said golf tee is removed from said hole and said golf ball is placed on said golf mat surface in the general location of said hole.
  - 19. The method of claim 17, wherein said timer circuit and said visible alarm are powered by batteries.
  - 20. The method of claim 17, wherein said device can be configured for use by:
- a right-handed golfer; and a left-handed golfer.

1